

Fact File

RIVER PANG



GUARDIANS OF THE WATER ENVIRONMENT



NRA

*National Rivers Authority
Thames Region*

Fact File - RIVER PANG

FACTS IN BRIEF

- The Pang is a rural chalk stream, rising to the north of Hampstead Norreys in Berkshire and flowing a distance of approximately 23km to its confluence with the Thames at Pangbourne.
- The Pang drains a catchment area of 183 square kilometres.
- The average annual rainfall in the Pang catchment is 701mm.
- Four fifths of the catchment is on chalk which tends to soak up the rainfall.
- The flow in the river is provided mainly from groundwater in the chalk of the Berkshire Downs emanating as springs. Consequently, the source of the river seasonally moves upstream or downstream depending on water table levels.
- In recent years, low rainfall combined with groundwater abstraction has caused a lowering of the water table and a consequent reduction in river flows.

THE NATIONAL RIVERS AUTHORITY

Established on 1 September 1989, the NRA is an independent public body charged with safeguarding and improving the natural water environment. It is responsible for flood defence, regulating the quality of rivers and groundwaters, balancing the needs of various water users, protecting and improving wildlife habitats and conserving the natural environment in all it undertakes.

TRIBUTARIES

There are a few small tributaries of the river between Bucklebury and Tidmarsh. The largest of these is the Bourne.

PLANNING LIAISON

The NRA works with local planning authorities to protect the Pang catchment from undesirable development.

WATER QUALITY

The River Pang flows mostly through agricultural areas and is fed by chalk springs. The quality is consequently very good from its source to the confluence with the River Thames at Pangbourne. The rural nature of the catchment means that sewage disposal is mainly dealt with in small localised systems. There are seven locations on the river where samples are regularly collected to check quality.

WATER QUALITY OBJECTIVES

From	To	Length Km	Objective
PANG			
E. Ilsley	Hampstead Norreys	11.1	E*
Hampstead Norreys	Thames	19.1	1A - Good
BOURNE			
Bucklebury Common	Chapel Row	0.7	E*
Chapel Row	Pang	7.6	1A - Good
WEBBS LANE STREAM			
Source	Bourne	2.3	X
BRIFF LANE STREAM			
Source	Pang	1.4	X

E* - Ephemeral: stream is regularly dry. When flowing it should comply with the objective of the downstream reach.

X - Unclassified

BIOLOGY

The Pang is one of the cleanest rivers in the Thames Region and it contains a high diversity of aquatic invertebrate animals. These include stonefly, mayfly, caddisfly and damselfly larvae, along with beetles, snails, shrimps and worms. Each of these different groups may be represented by several species. It is not unusual to find 30 - 40 different groups when the biologists sample a site of the river to check the quality.



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DISCHARGES

Thames Water Utilities PLC owns and operates six small sewage treatment plants which discharge to the Pang and its tributaries. In addition, there are about twelve smaller private discharges which are also regularly monitored. The largest of these works are:

Sewage Treatment Works	Cubic Metres Per Day
Bradfield	273
Bradfield: South End	900
Bucklebury Upper Common	879
Beenham	543

These figures are the maximum amount permitted to be discharged. All the discharges in the catchment are regularly monitored by NRA environmental quality staff based in Reading.

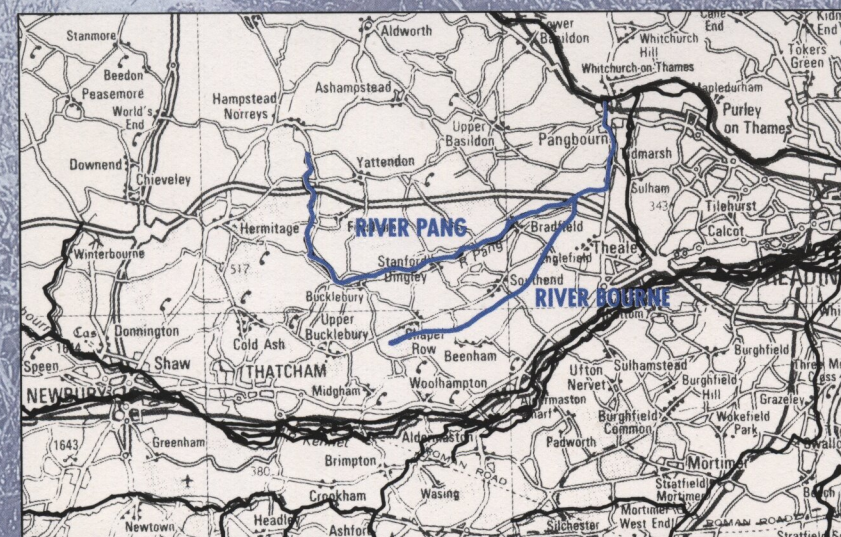
WATER RESOURCES

Rivers are a major source of drinking water. They also provide essential water supply to agriculture and industry, and a natural and efficient means of disposing of discharged effluent. Ensuring that there is enough water to go round calls for a delicate balancing act on the part of NRA staff. The majority of water taken out of most rivers is used for public drinking water and similarly the majority of effluent comes from sewage treatment works.

In order to ensure that there is sufficient information on river flows, the NRA carries out regular measurements and has a number of fixed gauging stations. There is one such on the Pang, immediately above its confluence with the Thames.

ABSTRACTIONS

Water can only be abstracted from rivers or groundwater under licence. NRA water resources staff are responsible for licensing abstractions throughout the Thames Region. There are no major abstractions from the River Pang itself, although there are a number of licensed abstractions for spray irrigation of crops. However, there are some significant abstractions from water in the chalk strata which would otherwise feed the Pang. Principally these are abstractions made by Thames Water Utilities PLC from boreholes at Compton, Bradfield and Pangbourne, to provide mains water.



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FLOOD DEFENCE

Reducing the risk of flooding on a day-to-day basis forms part of the NRA Thames Region's work.

The NRA's flood control room at Reading keeps a round the clock check on weather conditions and river levels. Staff interpret the information and give the local emergency services early warning of possible floods.

A flood defence team is based at Oxford to carry out regular river maintenance work. This includes dredging, weedcutting, and removal of blockages. This team is mobilised during flood emergencies to keep rivers clear of obstructions so that flood waters can be conveyed away as quickly as possible. They also provide assistance to environmental quality staff in cleaning up after pollution incidents.

The NRA is committed to protecting and improving the natural river environment and wherever possible our flood defence work includes features of environmental conservation and enhancement.

THE ALLEVIATION OF LOW FLOWS PROJECT

A large proportion of the groundwater which would otherwise feed the upper reaches of the River Pang has for some years been abstracted from boreholes at Compton for public water supply. Consequently, the river dries up for long periods within the village of Hampstead Norreys and downstream, causing great concern to riparian owners and spoiling an attractive village amenity. The river down to Stanford Dingley has become more vulnerable to drought and some environmental damage has occurred, particularly to the fisheries.

Since 1990, the NRA has been working with the Pang Valley Conservation Trust and Thames Water Utilities to restore flows to the Pang. An interim solution, agreed in 1991, was to reduce the abstraction at Compton by two thirds and make up the supply to Didcot from a new borehole alongside the Thames at Goring.

Work on this solution is expected to be completed during 1991 and Thames Water will bear the cost. Auxiliary work on the River Pang also started in 1991 and will cost the NRA £100,000.

FISH IN THE PANG

In the upper reaches of the Pang the extremely low flows are not able to support a significant fish population. From Stanford Dingley to the confluence with the Thames, the Pang has a good trout population augmented by some stocking by the various fly fishing clubs that fish the river. Grayling are also present in some numbers and coarse fish are to be found in the lower stretches near to the Thames.



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